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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 09/708,225 | 11/08/2000 | Keith Luker | 1511-00 | 1140 |
| 22469 | 7590 | 03/23/2004 | EXAMINER | |
| SCHNADER HARRISON SEGAL & LEWIS, LLP 1600 MARKET STREET SUITE 3600 PHILADELPHIA, PA 19103 | | | SORKIN, DAVID L | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1723 | |

DATE MAILED: 03/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|-----------------|--------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 09/708,225 | LUKER, KEITH | |
| | Examiner | Art Unit | |
| | David L. Sorkin | 1723 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3,21-33 and 36-54 is/are pending in the application.
- 4a) Of the above claim(s) 21-33 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3 and 36-54 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 November 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected as failing to comply with 37 CFR 1.84(p)(1) which states "Reference characters ... must not be ... enclosed within outlines, e.g., encircled". See Figs. 6a and 6b, which include numerous encircled reference characters.
2. Fig. 6b is also objected as failing to comply with 37 CFR 1.84(h)(3), which states "The ends of the broken line should be designated by Arabic or Roman numerals corresponding to the view number of the sectional view". Therefore in Fig. 6b, the sectional line "V – V" should instead be 6a – 6a.
3. The drawings are also objected to under 37 CFR 1.84(e) due to stray marks (copy machine marks) in Figs. 1a, 1b, 2a, 2b, 3a, 3b, 4a, 4b, 5a, 5b, 7a and 7b.
4. The drawings are objected to under 37 CFR 1.84(l) due to poor quality of lines, numbers and letters.
5. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

6. In accordance with the drawing corrections discussed above, all references to sectional line "V—V" should be changed to 6a - - 6a. See for example page 5 line 8.
7. Applicant is advised that should claim 36 be found allowable, claim 46 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two

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claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k). Independent claim 36 already requires the channels be "substantially axially disposed". Claim 46 merely repeats this requirement.

8. Claim 47 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claims, or amend the claim to place the claim in proper dependent form, or rewrite the claim in independent form. Dependent claim 47 contradicts base claim 36 which requires the channels to be "substantially axially disposed".

Claim Rejections - 35 USC § 112

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claim 47 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear what is being claimed in claim 47 because dependent claim 47 contradicts the requirement of base claim 36 in that the channels be "substantially axially disposed". See also the fourth paragraph of section 112.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 3 and 36-54 are rejected under 35 U.S.C. 102(b) as being anticipated by Le Roy (US 3,486,192). Regarding claims 36, 46 and 47, Le Roy ('192) discloses an extruder mixer comprising an elongated rotatable screw (20,10,22) having an elongational mixing zone (10) adapted to mixing material flowing therethrough, the mixing zone having: a substantially axially disposed inlet channel (one of "12") disposed inlet channel in fluid communication with a substantially axially disposed outlet channel (one of "14"); both the inlet channel and the outlet channel being bounded on one side by a substantially axially disposed blocking wall (one or more of "16"); a substantially axially disposed intermediate channel (another of "12" and in the alternative another of "14") disposed between the inlet and outlet channels and in fluid communication there with; a substantially axially disposed first cross axial pump (another of "16") disposed between the inlet channel and the first intermediate channel; and a substantially axially disposed second cross-axial pump (yet another of "16") disposed between the first intermediate channel and the outlet channel. Regarding claim 3, an upstream feeder (20) is flowingly connected. Regarding claim 37, the inlet channel (12) is open at a downstream end (see Fig. 2). Regarding claim 38, the dimensions of the channels are the same (see Fig. 2). Regarding claim 39, the dimensions of the channels are different from each other (see Fig. 4). Regarding claim 40, at least one pair of an additional substantially axially disposed intermediate channel (12 and in the alternative 14) and cross-axial pump (16) are disposed after the second pump and in fluid communication

therewith, the additional pump being disposed after the additional channel. Regarding claim 41, the inlet channel blocking wall and the outlet channel blocking wall are the same (See Figs. 1 and 2). Regarding claim 42, a screw channel is disposed on the rotatable screw before the input channel of the mixing zone (see Fig. 2, character "20"). Regarding claim 43, an output flight is flowingly connected to at least one of the blocking walls (see Fig. 2, character "22"). Regarding claim 44, the dimensions of the cross-axial pumps are the same (see Fig. 2). Regarding claim 45, the dimensions of the cross-axial pumps are different from each other (see Fig. 4). Regarding claim 48, a flow resistance device is disposed on the screw after the mixing zone (see Fig. 3, character 22). Regarding claim 49, the intermediate channel (14) is bounded by a flight on an upstream end for preventing material from flowing directly into the intermediate channel from outside of the mixing zone (see Fig. 2). Regarding claim 50, the outlet channel (14) is bounded by a flight on an upstream end for preventing material from flowing directly into the intermediate channel from outside of the mixing zone (see Fig. 2). Regarding claim 51, the intermediate channel (12) is open at an upstream end. Regarding claim 52, at least one of the at least one additional channel (12) is open at an upstream end. Regarding claim 53, the intermediate channel (14) is open at a downstream end. Regarding claim 54, at least one of the at least one additional channel (14) is open at a downstream end.

Response to Arguments

13. Applicant's arguments have been considered but are moot in view of the new grounds of rejection.

Conclusion


14. Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David L. Sorkin whose telephone number is 571-272-1148. The examiner can normally be reached on 9:00 -5:30 Mon.-Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda L. Walker can be reached on 571-272-1151. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



David Sorkin

David L. Sorkin
Examiner
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